

69. (new) A method for reducing osteoclast activity in a mammal comprising administering to the mammal an expression vector comprising a nucleic acid encoding osteoprotegerin and expressing osteoprotegerin.

70. (new) The method of Claim 69 wherein the nucleic acid sequence is selected from the group consisting of:

- a) a nucleic acid encoding a polypeptide comprising the amino acid sequence from residues 1 to 401 or from residues 22 to 401 as shown in Figure 9C-9D (SEQ ID NO:124);
- b) a nucleic acid encoding a polypeptide comprising a deletion of 1 to 216 amino acids residues from the carboxy terminus of the polypeptide as in (a); and
- c) a nucleic acid which hybridizes under high stringency conditions of 5XSSC, 50% formamide and 42°C with the nucleic acid set forth in (a) and (b) wherein the hybridizing nucleic acid encodes a polypeptide having the activity of reducing osteoclast activity.

71. (new) The method of Claim 69 wherein the nucleic acid encodes a polypeptide comprising residues 22-185, 22-189, 22-194, or 22-201 inclusive as shown in Figure 9C-9D (SEQ ID NO:124).

72. (new) The method of Claim 71 wherein the nucleic acid further comprises an Fc region of human IgG.

73. (new) The method of Claim 69 wherein the expression vector is a viral vector.

74. (new) The method of Claim 69 wherein the expression vector further comprises a pharmaceutically acceptable adjuvant.

75. (new) The method of Claim 69 wherein the mammal has a loss of bone mass.

76. (new) The method of Claim 75 wherein the bone loss is due to osteoporosis, Paget's disease, hypercalcemia, hyperparathyroidism, steroid-induced osteopenia, rheumatoid arthritis, osteomyelitis, osteolytic metastasis, or periodontal bone loss.